

Maine Woods Company, LLC)	Departmental
Aroostook County)	Findings of Fact and Order
Portage, Maine)	Air Emission License
A-736-71-B-R)	

After review of the air emissions license renewal application, staff investigation reports and other documents in the applicants file in the Bureau of Air Quality, pursuant to 38 M.R.S.A., Section 344 and Section 590, the Department finds the following facts:

I. REGISTRATION

A. Introduction

Maine Woods Company, LLC (Maine Woods) of Portage, Maine has applied to renew their air emission license, permitting the operation of emission sources associated with their hardwood sawmill and lumber drying facility.

The previous license failed to address the kilns located at the facility. The kilns have been included in this license. EPA's AP-42 factors for NO_x emissions from wood fired boilers were updated in July 2001. The updated factors were used for calculations in this license.

B. Emission Equipment

The following equipment is addressed in this license:

Fuel Burning Equipment

<u>Equipment</u>	<u>Maximum Capacity</u>	<u>Fuel Type, % sulfur</u>	<u>Maximum Firing Rate</u>	<u>Ctrl Eqpmnt</u>	<u>Stack #</u>
Boiler #1	28.8 MMBtu/hr	wood	3.2 ton/hr*	dual multicyclone	1
Furnace	3.5 MMBtu/hr	#2 oil, 0.5%	25 gal/hr	none	2
Drying Kilns	10,400 MBF	--	--	none	--

*based on wood with a moisture content of 50%, Higher Heating Value = 4500 Btu/lb

C. Application Classification

The application for Maine Woods does not include the licensing of increased emissions or the installation of new or modified equipment, therefore the license is considered to be a renewal of current licensed emissions units only.

II. BEST PRACTICAL TREATMENT (BPT)

A. Introduction

In order to receive a license the applicant must control emissions from each unit to a level considered by the Department to represent best practical treatment (BPT), as defined in Chapter 100 of the Bureau of Air Quality regulations. Separate control requirement categories exist for new and existing equipment as well as for those sources located in designated non-attainment areas. Descriptions of the applicable requirements are provided below under the appropriate headings.

Before proceeding with the control requirements for each unit a general process description is provided to identify where the equipment fits into the process.

Process Description

Maine Woods manufactures green and dried hardwood lumber.

Hardwood logs are delivered to the pile down area by trucks. The logs are accepted in precut and tree length form. Tree length material is slashed off-site and stored. From the pile down area, logs are transferred by truck to the mill infeed deck. Once debarked, the logs are sawed into lumber.

Slabs and edgings are chipped. After screening to remove fines and dust, the chips are mechanically conveyed to concrete storage bins. From there the chips are conveyed to container trucks. The station is equipped with a railcar cover to minimize fugitive emissions during loading.

Green lumber exits the sawmill as strapped bundles ready for shipment or as stickered bundles. The latter are transferred to the covered infeed carriages of the dry kilns using mobile lumber lifts. There are a series of six side-by-side steam heated, track style lumber dry kilns. From the dry kilns, the dry lumber is strapped for shipment.

Bark and sawdust generated by the sawmill is burned in the boiler. Excess wood waste is sold to off-site markets.

B. Boiler #1

Boiler #1 fires green hardwood sawdust and hogged bark with an approximate wet basis moisture content of 50%. The boiler has a maximum capacity of 28.8 MMBtu/hr, and was manufactured in 1998. It is therefore subject to EPA New Source Performance Standards (NSPS) Subpart Dc, for boilers with heat inputs between 10 MMBtu/hr and 100 MMBtu/hr, manufactured after June 9, 1989. Boiler #1 is not subject to the standards for sulfur dioxide (section 60.42c) or particulate matter (section 60.43c) because the boiler fires wood and has a capacity of less than 30 MMBtu/hr.

Emissions from Boiler #1 are vented to a multiclone to control particulate matter (PM). Remaining pollutants are minimized through good combustion practices.

The following is a summary of BPT for Boiler #1:

1. Continued use of a multiclone and continued good combustion practices.
2. PM emission limits calculated based on the maximum fuel input, ash and carbon carryover, and the efficiency of the multiclone. The PM₁₀ emission limit is based on AP-42 factors in which 61% of the emitted particulate matter was less than 10 microns in aerodynamic diameter. These PM limits meet the requirements of Chapter 103 of the Department's regulations.
3. SO₂, NO_x and VOC emission limits are based on EPA's AP-42 factors, dated 7/01 for wood fired boilers.
4. CO emissions are calculated based on performance data from the manufacturer.
5. Visible emissions from Boiler #1 shall not exceed 20%, except for one six minute period per hour of not more than 27% opacity.

C. Furnace

Maine Woods operates a 3.5 MMBtu/hr boiler in the garage/office building located on site. The Furnace fires #2 fuel oil, and is not subject to NSPS.

BPT for the Furnace is the following:

1. The firing of #2 fuel oil with a sulfur content not to exceed 0.5% by weight.
2. PM emission limits are regulated by MEDEP Chapter 103. PM₁₀ emission limits are based on the PM limits
3. NO_x, CO and VOC emission limits are based on EPA's AP-42 data dated 9/98 for boilers firing fuel oil.
4. Visible emissions from the Furnace's stack shall not exceed 20% opacity on a 6 minute block average.

D. Wood Drying Kilns

Maine Woods operates six side-by-side steam heated, track style lumber dry kilns. Maximum capacity in the kilns is limited to 11,400,000 board feet. VOC emissions released during the wood drying process have been estimated using data from studies conducted by the National Council of the Paper Industry for Air and Stream Improvement (NCASI) and the University of Maine. No data exists for the species in consideration in Maine Woods' kilns, therefore an estimate of VOC emissions has been made using conservative softwood factors. Maine Woods shall maintain records of wood throughput in the kilns, on a 12-month rolling basis.

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E. Fugitive Particulate Emissions

Fugitive particulate matter may potentially be emitted in the wood waste transfer and collections system, including the transfer of wood chips to railcars. Potential sources of fugitive PM emissions also include material stockpiles and unpaved roadways, and ash handling. Maine Woods shall maintain all potential fugitive particulate matter sources to prevent visible emissions in excess of 10% opacity on a six minute block average basis for more than one (1) six (6) minute block average in a 1- hour period.

F. Facility Emissions

Facility emissions were based on continuous operation of boiler #1 and the heater unit. Maine Woods has the following emissions, based on a 12 month rolling total:

Total Annual Emissions
(used to calculate the annual license fee)

Pollutant	Boiler #1 (tons)	Furnace (tons)	Drying Kilns (tons)	Total Tons/year
PM	27.75	1.84	--	29.59
PM ₁₀	15.14	1.84	--	16.98
SO ₂	3.15	7.72	--	10.87
NO _x	27.75	5.37	--	33.12
CO	41.00	0.55	--	41.55
VOC	4.79	0.04	18.92	23.75

III. AMBIENT AIR QUALITY ANALYSIS

According to the Maine Regulations Chapter 115, the level of air quality analyses required for a renewal source shall be determined on a case-by case basis. Based on the total facility emissions, Maine Woods is below the emissions level required for modeling and monitoring.

ORDER

Based on the above Findings and subject to conditions listed below, the Department concludes that the emissions from this source:

- will receive Best Practical Treatment,
- will not violate applicable emission standards,
- will not violate applicable ambient air quality standards in conjunction with emissions from other sources.

The Department hereby grants air emission license A-736-71-B-R, subject to the following conditions:

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STANDARD CONDITIONS

- (1) Employees and authorized representatives of the Department shall be allowed access to the licensee's premises during business hours, or any time during which any emissions units are in operation, and at such other times as the Department deems necessary for the purpose of performing tests, collecting samples, conducting inspections, or examining and copying records relating to emissions.
- (2) The licensee shall acquire a new or amended air emission license prior to commencing construction of a modification, unless specifically provided for in Chapter 115.
- (3) Approval to construct shall become invalid if the source has not commenced construction within eighteen (18) months after receipt of such approval or if construction is discontinued for a period of eighteen (18) months or more. The Department may extend this time period upon a satisfactory showing that an extension is justified, but may condition such extension upon a review of either the control technology analysis or the ambient air quality standards analysis, or both.
- (4) The licensee shall establish and maintain a continuing program of best management practices for suppression of fugitive particulate matter during any period of construction, reconstruction, or operation which may result in fugitive dust, and shall submit a description of the program to the Department upon request.
- (5) The licensee shall pay the annual air emission license fee to the Department, calculated pursuant to Title 38 MRSA §353.
- (6) The license does not convey any property rights of any sort, or any exclusive privilege.
- (7) The licensee shall maintain and operate all emission units and air pollution control systems required by the air emission license in a manner consistent with good air pollution control practice for minimizing emissions.
- (8) The licensee shall maintain sufficient records, to accurately document compliance with emission standards and license conditions and shall maintain such records for a minimum of six (6) years. The records shall be submitted to the Department upon written request.
- (9) The licensee shall comply with all terms and conditions of the air emission license. The filing of an appeal by the licensee, the notification of planned

- changes or anticipated noncompliance by the licensee, or the filing of an application by the licensee for the renewal of a license or amendment shall not stay any condition of the license.
- (10) The licensee may not use as a defense in an enforcement action that the disruption, cessation, or reduction of licensed operations would have been necessary in order to maintain compliance with the conditions of the air emission license.
- (11) In accordance with the Department's air emission compliance test protocol and 40 CFR Part 60 or other method approved or required by the Department, the licensee shall:
- (i) perform stack testing to demonstrate compliance with the applicable emission standards under circumstances representative of the facility's normal process and operating conditions:
 - a. within sixty (60) calendar days of receipt of a notification to test from the Department or EPA, if visible emissions, equipment operating parameters, staff inspection, air monitoring or other cause indicate to the Department that equipment may be operating out of compliance with emission standards or license conditions; or
 - b. pursuant to any other requirement of this license to perform stack testing.
 - (ii) install or make provisions to install test ports that meet the criteria of 40 CFR Part 60, Appendix A, and test platforms, if necessary, and other accommodations necessary to allow emission testing; and
 - (iii) submit a written report to the Department within thirty (30) days from date of test completion.
- (12) If the results of a stack test performed under circumstances representative of the facility's normal process and operating conditions indicate emissions in excess of the applicable standards, then:
- (i) within thirty (30) days following receipt of such test results, the licensee shall re-test the non-complying emission source under circumstances representative of the facility's normal process and operating conditions and in accordance with the Department's air emission compliance test protocol and 40 CFR Part 60 or other method approved or required by the Department; and

- (ii) the days of violation shall be presumed to include the date of stack test and each and every day of operation thereafter until compliance is demonstrated under normal and representative process and operating conditions, except to the extent that the facility can prove to the satisfaction of the Department that there were intervening days during which no violation occurred or that the violation was not continuing in nature; and
 - (iii) the licensee may, upon the approval of the Department following the successful demonstration of compliance at alternative load conditions, operate under such alternative load conditions on an interim basis prior to a demonstration of compliance under normal and representative process and operating conditions.
- (13) Notwithstanding any other provision in the State Implementation Plan approved by the EPA or Section 114(a) of the CAA, any credible evidence may be used for the purpose of establishing whether a person has violated or is in violation of any statute, regulation, or Part 70 license requirement.
- (14) The licensee shall maintain records of malfunctions, failures, downtime, and any other similar change in operation of air pollution control systems or the emissions unit itself that would affect emissions and that is not consistent with the terms and conditions of the air emission license. The licensee shall notify the Department within two (2) days or the next state working day, whichever is later, of such occasions where such changes result in an increase of emissions. The licensee shall report all excess emissions in the units of the applicable emission limitation.
- (15) Upon written request of the Department, the licensee shall establish and maintain such records, make such reports, install, use and maintain such monitoring equipment, sample such emissions (in accordance with such methods, at such locations, at such intervals, and in such manner as the Department shall prescribe), and provide other information as the Department may reasonably require to determine the licensee's compliance status.

SPECIFIC CONDITIONS

- (16) Boiler #1
 - A. Maine Woods shall fire wood fuel in Boiler #1. Maine Woods may also fire sawdust, oily sawdust, and oily rags.

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- B. The following limits shall not be exceeded by Boiler #1:

Boiler #1 Emission Limits

<u>Pollutant</u>	<u>lb/MMBtu</u>	<u>lb/hr</u>
PM	0.22	6.34
PM ₁₀	--	3.46
SO ₂	--	0.72
NO _x	--	6.34
CO	--	9.36
VOC	--	1.09

- C. Maine Woods shall operate and maintain a multiclone on the emissions from Boiler #1. Maine Woods shall keep a maintenance log of all failures and maintenance, routine or otherwise, on the multiclone.
- D. Boiler #1 is subject to 40 CFR 60 Subpart Dc, New Source Performance Standards for boilers with heat inputs between 10 MMBtu/hr and 100 MMBtu/hr and manufactured after June 9, 1989. Maine Woods shall comply with all applicable monitoring, record keeping and reporting requirements of Subparts A and Dc.
- E. Visible emissions from Boiler #1 shall not exceed 20%, except for one six minute period per hour of not more than 27% opacity.

(17) **Furnace**

- A. Maine Woods shall fire #2 fuel oil with a sulfur content not to exceed 0.5% by weight in the Furnace. Compliance shall be demonstrated through fuel delivery receipts showing the sulfur content of the fuel oil.
- B. The Furnace shall not exceed the following limits:

Furnace Emission Limits

<u>Pollutant</u>	<u>lb/MMBtu</u>	<u>lb/hr</u>
PM	0.12	0.42
PM ₁₀	--	0.42
SO ₂	--	1.76
NO _x	--	1.23
CO	--	0.13
VOC	--	0.01

- C. Visible emissions from the Furnace shall not exceed 20% opacity on a 6 minute block average.

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- (18) Drying Kilns
Yearly throughput is limited to 11,400,000 board feet per year based on a 12-month rolling total. Compliance shall be demonstrated through kiln loading records.
- (19) From fugitive particulate matter sources, Maine Woods shall not exceed 10% opacity on a six minute block average basis for more than one (1) six (6) minute block average in a 1 hour period. Potential fugitive particulate matter sources include the wood waste transfer and collections system (including the transfer of wood chips to railcars), material stockpiles and unpaved roadways, and ash handling.
- (20) A copy of this Order shall be kept on site and the operator(s) shall be familiar with the terms and conditions of the Order.
- (21) Maine Woods Company shall pay the annual air emission license fee within 30 days of **May 31** of each year. Pursuant to 38 MRSA §353-A, failure to pay this annual fee in the stated timeframe is sufficient grounds for revocation of the license under 38 MRSA §341-D, subsection 3.
- (22) The term of this order shall be for five (5) years from the signature date below.

DONE AND DATED IN AUGUSTA, MAINE THIS DAY OF 2003.

DEPARTMENT OF ENVIRONMENTAL PROTECTION

BY: _____
DAWN R. GALLAGHER, COMMISSIONER

PLEASE NOTE ATTACHED SHEET FOR GUIDANCE ON APPEAL PROCEDURES

Date of initial receipt of application: March 18, 2003

Date of application acceptance: March 26, 2003

Date filed with Board of Environmental Protection: _____

This order prepared by Rachel E. Pilling, Bureau of Air Quality